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DISCOVERY

Solitary, multinodular plexiform Schwannoma of finger - a rare lesion misdiagnosed as ganglion cyst

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ABSTRACT

The solitary nodular growth in hand is often considered as ganglion cyst or other common disorder in most instances. Asymptomatic lesions leading to delayed or neglected presentation are common. Nodular and firm growths should undergo histo-pathological evaluation as uncommon lesions at times mimic common conditions. A rare case of plexiform Schwannoma of fourth finger diagnosed on biopsy is reported here highlighting the knowledge of rarer entities for better management of similar lesions.

Key Words: Scwannoma, Plexiform, Finger, Biopsy, Hand.

1. INTRODUCTION

Svhwannoma are rare neural tumor composed of Schwann cells and plexiform variant is rare form of schwannoma (or neurilemmoma). It often involves young adults and usually are multinodular with distinct pattern of Schwann cells arranged in plexiform pattern with reported incidence is only 5 % of allSchwannomas.[1]Skin and soft tissues are primarily involved structures.[2]There has been association noted with neurofibromatosis (usually type 2) thus making clinical suspicion tricky in cases without this association.[3]These lesions in hand, if presenting as solitary nodular growth, may mimic other common disorders with similar appearance like ganglion cyst. Histopathological evaluation of the lesion is crucial to distinguish these rare lesions from common differentials.

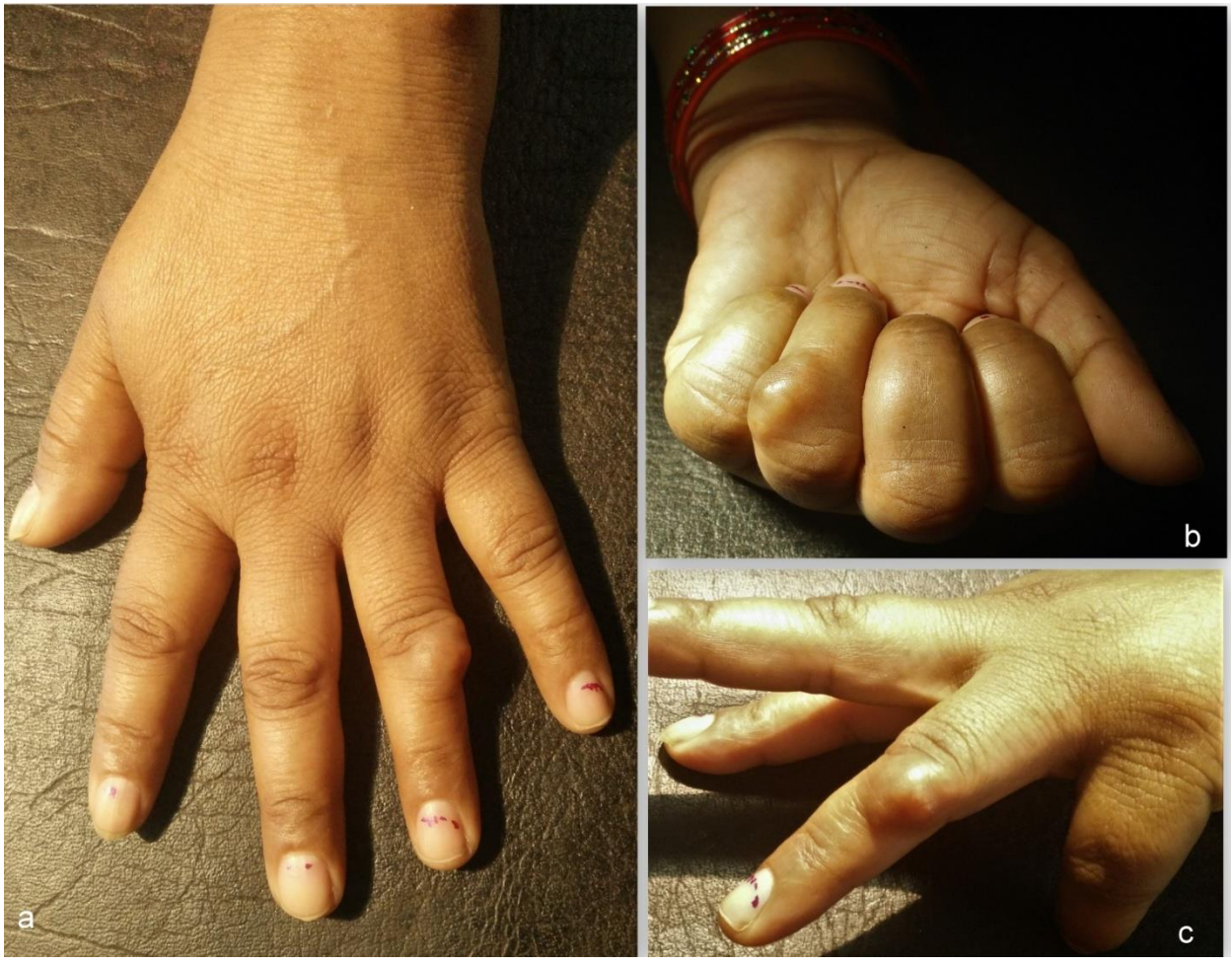

Figure 1 The clinical image of the well demarcated nodular growth over dorsomedial aspect of left fourth finger(a) with no restriction of motion noted in flexion (a) and extension (b).

A 38 years old female presented with a discrete nodular growth on medial aspect of her left index finger for last three years. The swelling was asymptomatic with static size from last one year after initial increase in size. The growth was about 1 cm. in its longest axis and not freely movable despite no apparent fixity to bone (Fig.1 a). There was minimal clinical problem with the swelling apart from cosmetic one and hand functions were unaltered (Fig.1. b,c). The radiograph confirmed soft tissue growth and additional imaging investigations were declined by patient. Excisional biopsy was planned following informed consent and uneventful en-bloc excision of a raspberry like mass measuring 1×0.5×0.5 cm., was done with small incision centered over the growth (Fig.2.a). The nodule was oval shaped, firm and nodular and on closer look appeared multinodular (Fig.2 b, c). The histo-pathological evaluation showed the nodular mass consisting of proliferating spindle cellsin bundled, encapsulated structures in plexiform manner within multinodular arrangement (Fig.2 d). The nodules were made up of spindle shaped cells arranged in form of intersecting fascicles. Intervening stroma was made up of fibro-cartilagenous tissue. The features were highly suggestive of plexiform Schwannoma.

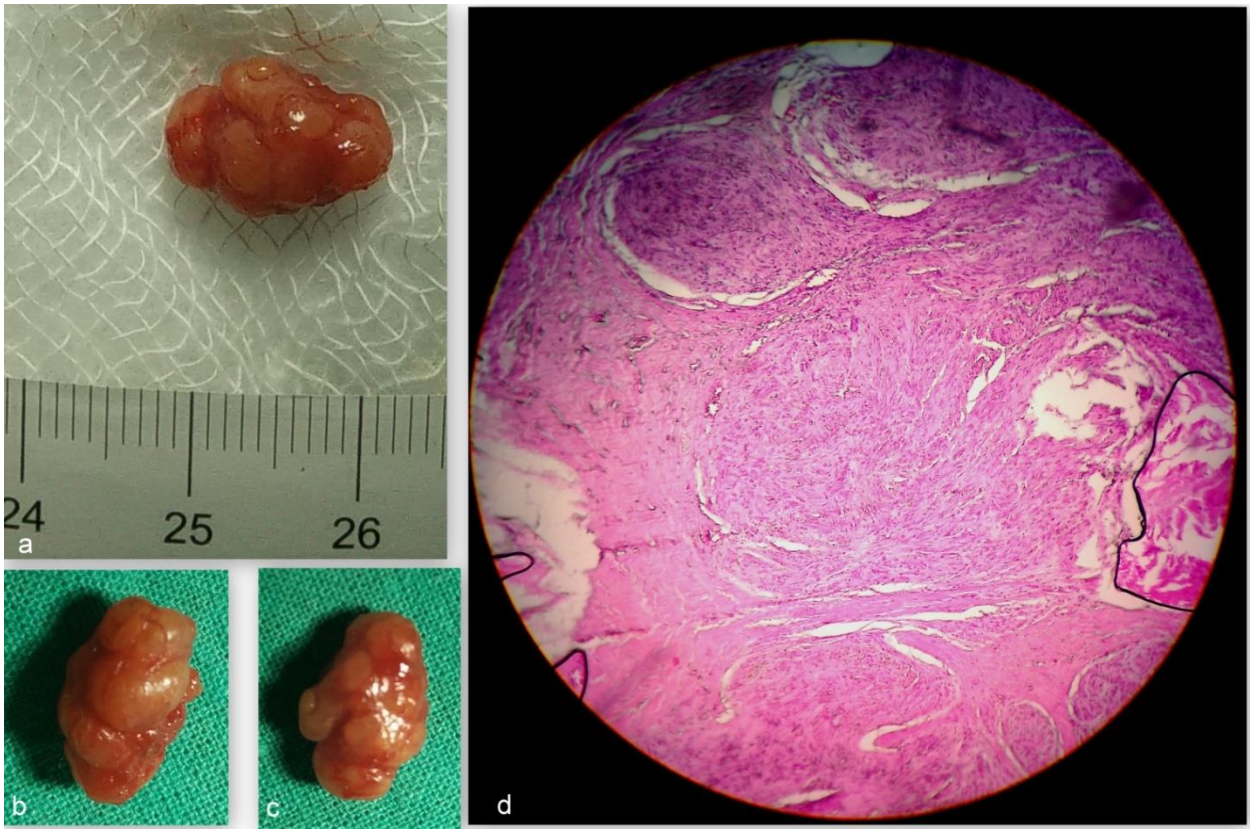

Figure 2 The excised specimen is an oval mass of about a centimeter in long axis (a). The gross appearance depicts multinodular nature of mass (b, c). The histopathological photomicrograph showing spindle cells arranged in encapsulated, multinodular bundles with intervening stroma of fibro-cartilagenous tissue (d).

Table 1 Table describing reports (year 2008 onwards) with key details of plexiform schwannoma cases not associated with neurofibromatosis and presenting as hand lesion.

Authors	Location in hand	Solitary or Multiple	Age/Sex
Talwalkar et al.	Palm of left hand and lesion found to affect median nerve in forearm	Multiple, multinodular, recurrent	4/M
Punia et al.	Index finger	Solitary	20/M
Wollina et al.	Palmar aspect right hand, multiple nodules	Multiple	24/M

Hwang et al.	Left fourth finger tip	Solitary	32/M
Fatima et al.	Index finger	Solitary, multinodular	15/M
Mortazavi et al.	Right fourth finger , PIP joint region	Solitary	49/F
Our case	Dorsomedial aspect left middle phalanx	Solitary, multinodular	38/F

2. DISCUSSION

The nodular growths in the hand and fingers are usually considered commonly as ganglion cyst. But there should be an attempt to rule out other differentials. The lesion was located in superficial tissues in our case as well and was composed of schwann cells in spindle shaped patterns within a multinodular mass. Usually these are described as multinodular with plexiform arrangement in previous studies.[4]The plexiform Schwannoma without neurofibromatosis is rare entity.These may be solitary or multiple and often unilateral in asymptomatic cases. These may be associated rarely with neurological problems especially when involving deep seated neural structures and plexuses.[5]The lesions of hands that are not associated with neurofibromatosis are limited to few recent reports (Table 1).[5-10] The knowledge of their occurrence in digits thus can help in keeping the differentials of certain uncommon lesions for better management of the cases.

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REFERENCE

1. Rongioletti F, Drago F, Rebora A. Multiple cutaneous plexiform schwannomas with tumors of the central nervous system. Archives of dermatology. 1989;125(3):431-432.
2. Haraida S, Nerlich AG, Bise K, Wiest I, Schleicher E. Comparison of various basement membrane components in benign and malignant peripheral nerve tumors. Virchows Arch Pathol Anat Histopathol 1992;421:331-8.
3. Val-Bernal JF, Figols J, Vázquez-Barquero A. Cutaneous plexiform schwannoma associated with neurofibromatosis type 2. Cancer 1995;76:1181-6.
4. Berg JC, Scheithauer BW, Spinner RJ, Allen CM, Koutlas IG. Plexiform schwannoma: A clinicopathologic overview with emphasis on the head and neck region. Human Pathol 2008;39:633-40.
5. Talwalkar SC, Cutler L, Stilwell JH. Multiple plexiform schwannoma of the hand and forearm: a long-term follow-up. J Hand Surg Br. 2005 Aug;30(4):358-60.
6. Hwang SW, Hong SK, Kim SH, Lee D, Kim JW, Park SW.A Case of Plexiform Schwannoma on the Finger Tip. Korean J Dermatol 2008; 46(3): 388-390.
7. Punia RS, Dhingra N, Mohan H. Cutaneous plexiform schwannoma of the finger not associated with neurofibromatosis. Am J ClinDermatol. 2008;9(2):129-31.
8. Wollina U, Langner D, Gruner M, Schönlebe J, Haroske G. J Dermatol Case Rep 2008; 2(2): 28-30.
9. Mortazavi N, Novin K, Zerehpoosh FB, Sadatsafavi M. Plexiform schwannoma of the finger: A case report and literature review. Indian Dermatol Online J 2017;8:355-7.
10. Fatima S, Butt R. Plexiform schwannoma: A case report and a review of the literature. J Clin Case Rep 2017, 7:8(Suppl).